

ANNOTATED CHECKLIST OF TYPE SPECIMENS OF NEW ZEALAND PLANTS IN THE AUCKLAND INSTITUTE AND MUSEUM HERBARIUM

Parts 1 and 2. Pteridophyta and Gymnospermae

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Abstract. Presumptive type material of New Zealand Pteridophyta and Gymnospermae in the AK Herbarium is presented in an annotated checklist of 43 taxa.

A systematic search for probable type material in the native plant collections in the Auckland Institute and Museum Herbarium (AK) has revealed many specimens additional to those listed by R. C. Cooper in the *Records of the Auckland Institute and Museum* in 1949 (Cooper 1949).

The annotated checklist is intended to amplify and bring up-to-date the 1949 list of "primary" types. As well as holotypes, lectotypes and syntypes, isotypes are included in the present list (accounting for the many Colenso fern specimens not listed by Cooper). The type material is selected in accordance with Article 7 (Typification) in the International Code of Botanical Nomenclature, 1966 (Lanjouw 1966). As before, plant names "are as originally published, although many have since been relegated to synonymy" (Cooper 1949).

The checklist will be presented in several parts, beginning with Parts 1 and 2, Pteridophyta and Gymnospermae, in this paper and Part 3, Monocotyledones — Gramineae, in a following paper by Wright (1978 this volume). Occasional figures will be shown — depicting labels on the herbarium sheets of the mounted type material.

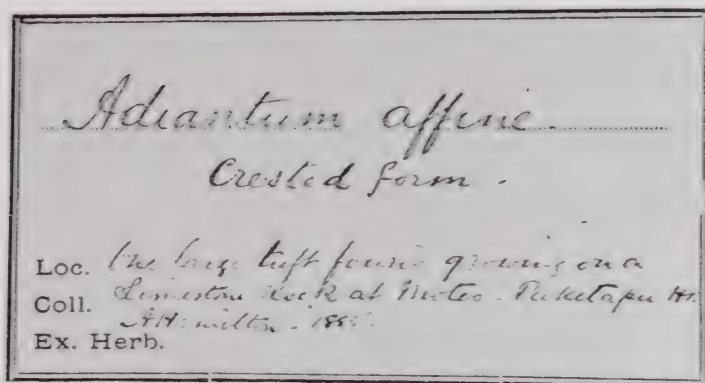
Specimens thought to have type status are listed, together with their author and publication reference. Details of the type locality, quoted directly from the original description, are given in quotation marks. In citing AK specimens, labels and notes of the collectors have been quoted where possible, giving their information in the following order: locality, collector, date, AK number. Metric equivalents of altitudes, distances and measurements have been added in square brackets. * before the specimen data denotes that the label is written in a handwriting other than that of the collector (often in Cheeseman's hand on labels printed "Herb. T. F. Cheeseman"). † after specimen information denotes published designation of the AK specimen as type material. Otherwise the class of type is not given unless designated by a specialist, on the herbarium sheet.

PART 1. PTERIDOPHYTA

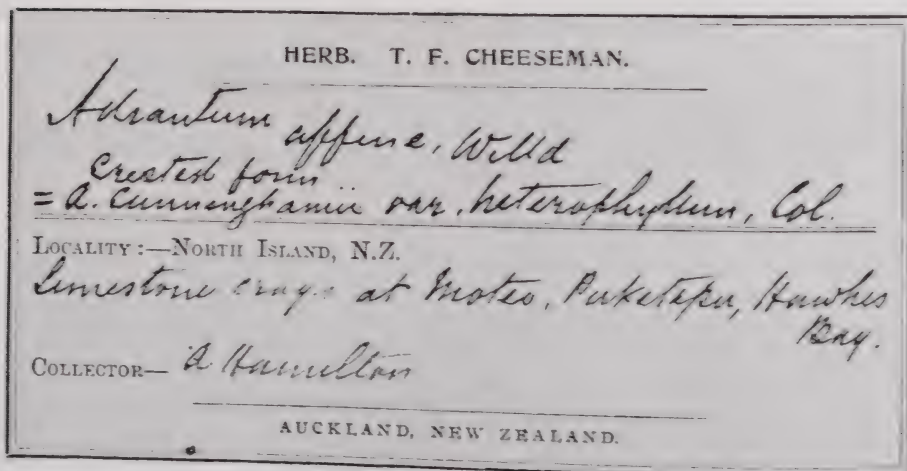
Most of the pteridophyte types listed here were not published in the 1949 list of primary types in the Auckland Museum (Cooper 1949). Many are probable isotypes of Colenso specimens held in the Kew Herbarium (K) or in the National Museum Herbarium, Wellington (WELT). Some Colenso types are listed in Allan's *Flora of New Zealand* 1 (Allan 1961).

Adiantum affine Willd. var **heterophyllum** Col. *Trans. Proc. N.Z. Inst.* 20: 218 (1888)
TYPE LOCALITY. "On limestone crags at Moteo, Puketapu District, near Napier: 1885. Mr A. Hamilton."

Specimen. One large tuft found growing on a Limestone Rock at Moteo — Puketapu — H.B., A. Hamilton, 1885 (Fig. 1); * Limestone crags at Moteo, Puketapu, Hawkes Bay, A. Hamilton, no date, (Fig. 2) AK 135717.



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2

Figs. 1, 2. Herbarium labels. 1. Label of A. Hamilton, 1885 (9 x 5 cm). 2. Label of Herb. T. F. Cheeseman, in Cheeseman's handwriting (13.5 x 7.5 cm).

Adiantum polymorphum Col. *Trans. Proc. N.Z. Inst.* 20: 215 (1888)

TYPE LOCALITY. "On the ground at a steep declivity, forming a small bed or patch, and very closely growing together, in a thick wood south of Dannevirke, County of Waipawa; May, 1887: W. C. (Not noticed anywhere else.)"

Specimens. * Dannevirke, Hawkes Bay, W. Colenso, no date, AK 135724-25.

Adiantum pullum Col. *Trans. Proc. N.Z. Inst.* 25: 319 (1893)

TYPE LOCALITY. "Open land, damp shaded spots rocky places, between Dannevirke and the East Coast, County of Waipawa; 1892: Mr H. Hill."

Specimen. * Near Dannevirke, Hawkes Bay, H. Hill ex Herb. Colenso, no date, AK 135718.

Adiantum tuberosum Col. *Trans. Proc. N.Z. Inst.* 20: 217 (1888)

TYPE LOCALITY. "Woods near Ormondville, County of Waipawa: Mr A. Hamilton."

Specimen. * Ormondville, Hawkes Bay, A. Hamilton ex W. Colenso, no date, AK 135731.

Alsophila colensoi Hook. f. *Fl. N.Z.* 2; 8 (1854)

TYPE LOCALITY. "Northern Island: Ruahine Range, Colenso."

Specimens. * Ruahine Mountains, W. Colenso, no date, AK 136260-61.

Aspidium perelegans Col. *Trans. Proc. N.Z. Inst.* 29: 416 (1897)

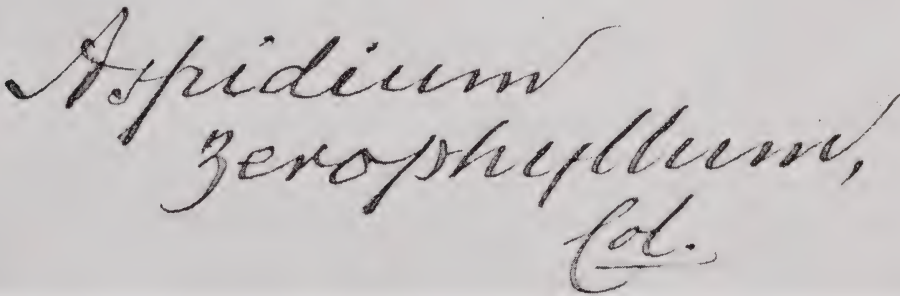
TYPE LOCALITY. "Forests south-west from Dannevirke; 1896: W. C."

Specimens. *Aspidium perelegans* (in Colenso's hand); * Dannevirke, Hawkes Bay, W. Colenso, no date, AK 139718 (2 sheets).

Aspidium zerophyllum Col. *Trans. Proc. N.Z. Inst.* 29: 418 (1897)

TYPE LOCALITY. "Hilly woods south-west of Dannevirke; 1896: W. C."

Specimens. *Aspidium zerophyllum* Col. (in Colenso's hand) (Fig. 3), no locality, collector or date; * Hawkes Bay, Dannevirke, W. Colenso, AK 139720; * Ex Herb. W. Colenso, no locality, collector or date, also note by D. Petrie, AK 139719.



Aspidium
zerophyllum,
Col.

3.

Fig. 3. Colenso's handwriting.

Asplenium anomodum Col. *Trans. Proc. N.Z. Inst.* 15: 309 (1883)

TYPE LOCALITY. "On decomposing limestone ridges, forests near Norsewood, W. C.; at Takapau, Mr. J. Stewart; and at Te Aute, Mr. C. P. Winkelmann."

Specimens. * Norsewood, Hawkes Bay, W. Colenso, no date, AK 30347; Te Aute Range, Hawkes Bay, C. P. Winkelmann, no date, AK 30343.

Asplenium colensii Col. *Tasm. J. Nat. Sci.* 2: 170 (1846)

TYPE LOCALITY. "In clefts and on shaded rocks, dry places, on the borders of Waikare Lake: Dec. 1841."

Specimen. * Lake Waikare Moana, W. Colenso, Dec. 1841; One of the types of Colenso's *A. colensoi*, *Tasm. Journ. Nat. Sci.* recd from Mr Colenso (In Cheeseman's hand), AK 135884.

Asplenium gracillimum Col. *Trans. Proc. N.Z. Inst.* 22: 453 (1890)

TYPE LOCALITY. "Dry side of hills, shady woods south of Dannevirke, County of Waipawa (where it is plentiful); 1888, 1889: W. C."

Specimens. * Dannevirke, Hawkes Bay, W. Colenso, no date, AK 135792 (2 sheets).

Asplenium ornatum Col. *Trans. Proc. N.Z. Inst.* 22: 452 (1890)

TYPE LOCALITY. "On dry hilly ground at Kuripapango, County of Hawkes Bay; 1889: Mr. Pinckney."

Specimen. Mr Pinckney from Kuripapanga, — W C, -/89, AK 135844.

Botrychium biforme Col. *Trans. Proc. N.Z. Inst.* 18: 223 (1886)

TYPE LOCALITY. "In swamps, near Tahoraiti, County of Waipawa; April, 1885: Mr H. Hill."

Specimen. * Dannevirke, H. Bay, W. Colenso, no date, AK 950 (2 sheets).

Cheilanthes erecta Col. *Trans. Proc. N.Z. Inst.* 28: 619 (1896)

TYPE LOCALITY. "Country between lower Waikato (N.), head of Thames and Kaipara; 1843-44: W. C."

Specimen. * Near Auckland ?, W. Colenso, no date, AK 695(135699).

Cheilanthes pellucida Col. *Tasm. J. Nat. Sci.* 2: 173 (1846)

TYPE LOCALITY. "On clayey declivities in dry woods, between Cape Brett and Whangarei Bay, E. Coast; 1839 and 1842."

Specimen. * Between Whangarei & Cape Brett, W. Colenso, no date, AK 700.

Cyathea polyneuron Col. *Trans. Proc. N.Z. Inst.* 11: 429 (1879)

TYPE LOCALITY. ". . . on my ground (Scinde Island, Napier) . . . from the eastern slopes of the Ruahine Mountain forests, as well as from smaller woods near the sea on the east coast."

Specimen. * Hawkes Bay, W. Colenso, no date, AK 143439.

Cyathea tricolor Col. *Trans. Proc. N.Z. Inst.* 15: 304 (1883)

TYPE LOCALITY. "Deep forests (Seventy-mile Bush) on eastern outlying spurs of the Ruahine Mountain Range, between Norsewood and Dannevirke villages; April, 1822."

Specimen. * Norsewood, Hawkes Bay, W. Colenso, no date, AK 136264.

Davallia pinkneyi Col. *Trans. Proc. N.Z. Inst.* 29: 415 (1897)

TYPE LOCALITY. "In a dry wood near margin of Mangatera Stream, south of Dannevirke; 1895: Mr. Pinkney."

Specimens. *Davallia (Microlepidia) Pinckneyi* Col.; * Hawkes Bay (probably) no date, W. Colenso, AK 114359-60.

Davallia tasmani H. C. Field *Ferns N.Z.* 75 (1890)

TYPE LOCALITY. "Three Kings islands, near the North Cape, in 1887, by Mr. T. F. Cheeseman."

Specimens. Three Kings Islands, T.F.C., Aug. 1887, AK 419† (specified as type by Oliver, *Rec. Auckland Inst. Mus.* 3: 214 (1948)). Three Kings Islands, T.F.C., Aug. 1887, AK 10811-14.

Dicksonia gracilis Col. *Trans. Proc. N.Z. Inst.* 15: 306 (1883)

TYPE LOCALITY. "In low-lying forests between Norsewood and Dannevirke, "Seventy-mile Bush" April, 1882."

Specimen. * Dannevirke, H. Bay, W. Colenso, no date, AK 137951.

Dicksonia microcarpa Col. *Trans. Proc. N.Z. Inst.* 20: 214 (1888)

TYPE LOCALITY. "Forests south of Dannevirke, County of Waipawa, 1887: W. C."

Specimens. * Dannevirke, H.B., W. Colenso, no date, AK 137903 (4 sheets).

Dicksonia sparmanniana Col. *Trans. Proc. N.Z. Inst.* 12: 363 (1880)

TYPE LOCALITY. "In hilly shaded forests, western slopes of Ruahine Range, head of river Manawatu, 1877-80."

Specimens. *Dicksonia sparmanniana* Col. (sheet 1 in Colenso's hand); * Western slopes of Ruahine Range, W. Colenso, no date, AK 51026 (2 sheets).

Gleichenia ciliata Col. *Trans. Proc. N.Z. Inst.* 29: 414 (1897)

TYPE LOCALITY. "On east side of Mount Ruapehu, Taupo district; 1895: Mr. E. W. Andrews."

Specimen. * Ruahine Range, Mr Andrews ex Herb. Colenso, no date, AK 876 (139767).

Hemitelia falciloba Col. *Trans. Proc. N.Z. Inst.* 24: 394 (1892)

TYPE LOCALITY. "On the side of a precipitous gully overhanging a small streamlet, in a forest south of Dannevirke, County of Waipawa; January, 1889: W. C."

Specimen. * Near Dannevirke, Hawkes Bay, T.F.C. (probably in error for W. Colenso), no date, AK 136267.

Hemitelia microphylla Col. *Trans. Proc. N.Z. Inst.* 27: 399 (1895)

TYPE LOCALITY. "In dense forests north-west from Dannevirke, County of Waipawa; 1894: W. C."

Specimens. * Dannevirke, Hawkes Bay, W. Colenso, no date, AK 51028-29.

Hemitelia stellulata Col. *Trans. Proc. N.Z. Inst.* 18: 222 (1886)

TYPE LOCALITY. "Edges of forests, banks of streams in the Seventy-mile Bush, between Norsewood and Dannevirke, County of Waipawa; 1882-5: W. C."

Specimen. * Norsewood, Hawkes Bay, W. Colenso, no date, AK 143440.

Hymenophyllum alpinum Col. *Trans. Proc. N.Z. Inst.* 31: 263 (1899)

TYPE LOCALITY. "Ruahine Mountain-range, alpine woods, east side; 1898: Mr H. Hill. Same mountain-range, common; 1845-52: W.C."

Specimen. * Ruahine Range, Hawkes Bay, H. Hill, no date, AK 140011.

Hymenophyllum erecto-alatum Col. *Trans. Proc. N.Z. Inst.* 11: 431 (1879)

TYPE LOCALITY. "Growing diffusely among roots of trees in dry forests near Norsewood (Forty-mile Bush), Hawke Bay, 1876; and again, 1878."

Specimen. *Hymenophyllum erecto-alatum* Col. (in Colenso's hand); * Norsewood, Hawkes Bay, W. Colenso, no date, AK 119.

Hymenophyllum lophocarpum Col. *Trans. Proc. N.Z. Inst.* 17: 255 (1885)

TYPE LOCALITY. "On trunks and main branches of trees, hilly forests in the interior, Seventy-mile Bush, County of Waipawa; 1860-84: W. C."

- Specimens.* * Dannevirke, H. Bay, W. Colenso, no date, AK 83 (142558) (2 sheets).
- Hymenophyllum megalocarpum** Col. *Trans. Proc. N.Z. Inst.* 15: 308 (1883)
 TYPE LOCALITY. "In open woods, in the Seventy-Mile Bush between Norsewood and Dannevirke, both on the ground (but not growing thickly) and climbing trees — particularly the trunks of the tree-ferns, arborescent *Dicksonia* — 1881, 1882."
Specimen. * Dannevirke, H. Bay, W. Colenso, no date, AK 118.
- Hymenophyllum melanocheilos** Col. *Trans. Proc. N.Z. Inst.* 17: 255 (1885)
 TYPE LOCALITY. "Woods, Whangaroa, County of Mongonui; 1884: Mr. R. W. Rowson."
Specimen. * Whangaroa, R. W. Rowson, 1885, AK 139868.
- Hymenophyllum oligocarpum** Col. *Trans. Proc. N.Z. Inst.* 31: 264 (1899)
 TYPE LOCALITY. "Forests, Waikaremoana, Hawke's Bay; 1898: Mr H. Hill."
Specimen. * Lake Waikaremoana, H. Hill, no date, AK 140012.
- Hymenophyllum polychilum** Col. *Trans. Proc. N.Z. Inst.* 24: 395 (1892)
 TYPE LOCALITY. "Dry shaded woods south of Dannevirke, County of Waipawa; 1890-91: W. C."
Specimens. * Dannevirke, Hawkes Bay, W. Colenso, no date, AK 117 (2 sheets).
- Hymenophyllum revolutum** Col. *Tasm. J. Nat. Sci.* 2: 186 (1846)
 TYPE LOCALITY. "On sides of prostrate and reclining trees, shores of Waikare Lake, December, 1841."
Specimen. * Lake Waikare-moana, Colenso, no date, AK 128411.
- Hymenophyllum truncatum** Col. *Trans. Proc. N.Z. Inst.* 23: 390 (1891)
 TYPE LOCALITY. "Plentifully on trunk of a large tree, in a thicket, south of Dannevirke, County of Waipawa; 1887-90: W.C."
Specimen. * Dannevirke, Hawkes Bay, W. Colenso, no date, AK 140009.
- Hypolepis petricana** Carse *Trans. Proc. N.Z. Inst.* 50: 64 (1918)
 TYPE LOCALITY. "Vicinity of Otorohanga, Waipa County, and Port Charles, Coromandel County, D. Petrie!"
Specimens. Near Otorohanga, on alluvial flats, D. Petrie, early Decr.: The same plant is common on flats fronting the head of Port Charles (in Petrie's hand), * Otorohanga, Upper Waipa, D. Petrie, no date, (on same herbarium sheet), AK 139599 (5 sheets).
- Lomaria linearis** Col. *Tasm. J. Nat. Sci.* 1: 376 (1842)
 TYPE LOCALITY. "Margins of woods, near *Te Waiti*, a village in the interior of the North Island, two days journey south east from *Rotorua*. January, 1842."
Specimen. *Lomaria linearis*, W. Colenso Described March /42 — in Journal of Tasmanian Philos. Soc., (in Colenso's hand); * Te Whaiti, near Ruatahuna, W. Colenso, no date, AK 143479.
- Lomaria parvifolia** Col. *Trans. Proc. N.Z. Inst.* 20: 224 (1888)
 TYPE LOCALITY. "High slopes of Tongariro Mountain Range, County of East Taupo; 1887: per Mr. H. Hill."
Specimen. *Lom. parvifolia* Col. (in Colenso's hand); * Tongariro, H. Hill, no date; AK 641 († Allan 1961: 82).
- Lycopodium curvifolium** Col. *Trans. Proc. N.Z. Inst.* 20: 235 (1888)
 TYPE LOCALITY. "High lands, "altitude 2,000 feet," [609.60 m] north of Gisborne,

County of Cook; 1887: Mr W. K. Chambers."

Specimen. * Near Gisborne, W. K. Chambers ex W. Colenso, no date, AK 1020.

Lycopodium novae-zelandicum Colenso *Trans. Proc. N.Z. Inst.* 19: 275 (1887)

TYPE LOCALITY. "Epiphytical on fern-trees, open marshy glades in low forest, bank of River Mangatawhainui, near Norsewood, County of Waipawa, 1886: W. C."

Specimen. *Lycopodium Novae-Zelandicum* sp. nov. Col. (in Colenso's hand), no locality or date, AK 985.

Polypodium pennigerum Forst. f. var. **giganteum** Col. *Trans. Proc. N.Z. Inst.* 14: 339 (1882)

TYPE LOCALITY. "Skirts of woods and thickets, head of River Manawatu; 1875-1881."

Specimens. * Manawatu River, W. Colenso, no date, AK 142518.

Polypodium pennigerum Forst. f. var. **hamiltonii** Col. *Trans. Proc. N.Z. Inst.* 14: 338 (1882).

TYPE LOCALITY. "Wet rocky sides of mountain streamlets, country S.W. from Napier, North Island; found by Mr A. Hamilton in 1881."

Specimens. Kereru, Petane Hawkes Bay, A. H. Ex Herb. A. Hamilton, 1881; * Kereru. Hawkes Bay, A. Hamilton, 1881, AK 142511 (2 sheets).

Polypodium rupestre Br. var. **sinuatum** Col. *Trans. Proc. N.Z. Inst.* 17: 257 (1885)

TYPE LOCALITY. "On living trees, woods, Seventy-mile Bush, between Matamau and Dannevirke, County of Waipawa; 1883-84 (also in woods, East Coast): W. C."

Specimen. * Dannevirke, Hawkes Bay, W. Colenso, no date, AK 850.

Polypodium subsimilis Col. *Trans. Proc. N.Z. Inst.* 20: 233 (1888)

TYPE LOCALITY. "Sides of streams, forests near Matamau, County of Waipawa; 1882-83: W. C."

Specimen. * Matamau, Hawkes Bay, W. Colenso, no date, AK 142510.

Pteris macilenta A. Rich. var. **saxatilis** Carse *Trans. Proc. N.Z. Inst.* 51: 95 (1919)

TYPE LOCALITY. "Among detached rocks in hilly forests, Mongonui County, Bay of Islands, Whangarei, Manukau County; H.C. Coromandel Peninsula: H.B. Matthews! Thames; D. Petrie!"

Specimens. Among rocks, McKay's Bush, Kaiaka, Coll. H.C., Jan 1917, AK 12335. In forest, among loose rocks, Kaiaka, Mongonui Co, Coll. H. Carse, July 1919, AK 135552. In wood on rocky slope, Kaiaka, Mangonui Co, Coll. H. Carse 1444, no date, AK 126986. * Among rocks, McKay's Bush, Kaiaka, Mongonui County, H. Carse, no date, AK 12340. Mauku, H.C., July 1900, AK 135548.

Pteris pendula Col. *Trans. Proc. N.Z. Inst.* 20: 218 (1888)

TYPE LOCALITY. "Ever shaded wet-dripping gravelly cliffs (among other ferns and shrubs), banks of a stream south of Dannevirke Township, County of Waipawa; 1887: W. C."

Specimens. * Dannevirke, Hawkes Bay, W. Colenso, no date, AK 135544.

PART 2. GYMNOSPERMAE

This presumptive type material was not included in the 1949 list of primary types in the Auckland Museum (Cooper 1949).

Podocarpus acutifolius Kirk *Trans. Proc. N.Z. Inst.* 16: 370 (1884)

TYPE LOCALITY. "South Island — Upper part of the Buller Valley: T. Kirk, 1875. . . . My specimens were obtained in the vicinity of Rotoiti, not far from the outflow of the lake. I have to acknowledge my indebtedness to Mr. Cheeseman for specimens collected in another habitat lower down the valley."

Specimens. Roto Iti, Nelson, T. Kirk, no date; * Lake Rotoiti, Nelson, 1800 ft [548.64 m], T.F.C., Jan. 1878, AK 1105/1-2. (There are two specimens on AK 1105/1 and it is presumed that one was collected by Kirk and one by Cheeseman as there are the two labels).

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